

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IFW

Applicant: Dan Kesner Carter et al.

Title: DEVICE AND METHOD FOR SELECTIVELY MODIFYING A BACKPLANE

Docket No.: 1555.021US1

Filed: September 16, 2003

Examiner: Dameon E. Levi



Serial No.: 10/663,627

Due Date: December 19, 2005

Group Art Unit: 2841

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

We are transmitting herewith the following attached items (as indicated with an "X"):

- ☒ Return postcard.
- ☒ Petition Under 37 CFR 1.181 to Withdraw Holding of Abandonment (2 pgs.).
- ☒ Copy of USPTO stamped Response and postcard filed October 6, 2005 (10 pgs.).

If not provided for in a separate paper filed herewith, Please consider this a PETITION FOR EXTENSION OF TIME for sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
Customer Number 21186

By: Thomas F. Brennan
Atty: Thomas F. Brennan
Reg. No. 35,075

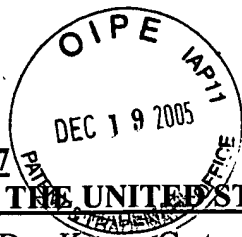
CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 14 day of December, 2005.

LISA POSORSKE
Name

Lisa Posorske
Signature

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
(GENERAL)

S/N 10/663,627



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | | | |
|-------------|---|-----------------|-------------|
| Applicant: | Dan Kesner Carter et al. | Examiner: | Dameon Levi |
| Serial No.: | 10/663,627 | Group Art Unit: | 2841 |
| Filed: | September 16, 2003 | Docket: | 1555.021US1 |
| Title: | DEVICE AND METHOD FOR SELECTIVELY MODIFYING A BACKPLANE | | |

PETITION UNDER 37 CFR 1.181 TO WITHDRAW HOLDING OF ABANDONMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

A Notice of Abandonment mailed October 19, 2005 for the above-identified patent application was received by our office on November 7, 2005. The Notice alleges that Applicant failed to timely file a proper reply to the Office Action mailed April 6, 2005.

However, Applicant submits respectfully that the holding of abandonment should be withdrawn because, as the attached copy of a return postcard shows, Applicant filed a Response to the Office Action on October 6, 2005 and that the Patent Office acknowledged receipt of the Response on October 11, 2005. Copies of the Response papers, which include the requisite Certificate of Mailing, are also attached with this Petition. Accordingly, Applicant requests respectfully that the holding of abandonment of this application be withdrawn and the application returned to the Examiner for continued examination in view of the Response as soon as possible.

It is Applicant's understanding that no fee is required for a petition to withdraw a holding of abandonment (see MPEP 711.03(c)), and therefore no fee is enclosed. However, if a fee is required, please charge it to Deposit Account 19-0743.

The Examiner is invited to telephone Applicant's attorney at (612) 373-6909 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

DAN KESNER CARTER ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938
Minneapolis, MN 55402
(612) 373-6909

Date December 14, 2005 By Thomas F. Brennan
Thomas F Brennan
Reg. No. 35,075

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 14 day of December, 2005.

LISA POSORSKE
Name

Lisa Posorske
Signature

Receipt is hereby acknowledged for the following in the United States Patent and Trademark Office:

In re Patent Application of: Dan Kesner Carter et al.

Title: DEVICE AND METHOD FOR SELECTIVELY MODIFYING A
BACKPLANE

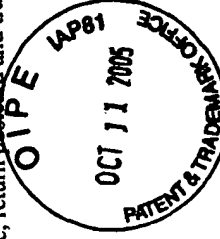
Serial No.: 10/663,627

Filing Date: September 16, 2003

CONTENTS: Amendment and Response (1 pgs.); Petition for Extension of Time (1 pg.); authorization to charge Deposit Account 19-0743 in the amount of \$510.00 to cover the Extension of Time Fee; return postcard and transmittal sheet.

Mailed: October 6, 2005
TFB/lmp

Docket No.: 1555.021US1
Due Date: September 6, 2005



IFW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

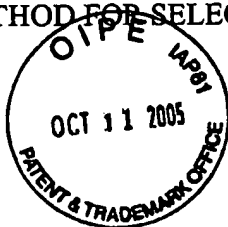
Applicant: Dan Kesner Carter et al.

Title: DEVICE AND METHOD FOR SELECTIVELY MODIFYING A BACKPLANE

Docket No.: 1555.021US1

Filed: September 16, 2003

Examiner: Dameon E. Levi



Serial No.: 10/663,627

Due Date: September 6, 2005

Group Art Unit: 2841

MS Amendment

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

We are transmitting herewith the following attached items (as indicated with an "X"):

☒ Return postcard.

☒ Amendment and Response (7 pgs.).

☒ Petition for Extension of Time (1 pg.).

☒ Authorization to charge Deposit Account 19-0743 in the amount of \$510.00 to cover the Extension of Time Fee.

If not provided for in a separate paper filed herewith, Please consider this a **PETITION FOR EXTENSION OF TIME** for sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

Customer Number 21186

By: Thomas F. Brennan

Atty: Thomas F. Brennan

Reg. No. 35,075

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 6th day of October, 2005.

THOMAS F. BRENNAN
Name

Thomas F. Brennan
Signature

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

(GENERAL)

S/N 10/663,627

PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | | | |
|-------------|--|-----------------|-------------|
| Applicant: | Dan Kesner Carter et al. | Examiner: | Dameon Levi |
| Serial No.: | 10/663,627 | Group Art Unit: | 2841 |
| Filed: | September 16, 2003 | Docket No: | 1555.021US1 |
| Title | <u>DEVICE AND METHOD FOR SELECTIVELY MODIFYING A BACKPLANE</u> | | |

PETITION FOR A THREE-MONTH EXTENSION OF TIME

MS Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

In accordance with the provision of 37 CFR § 1.136(a), it is respectfully requested that a three-month extension of time be granted in which to respond to the Office Action mailed April 6, 2005, said period of response being extended from July 6, 2005 to October 6, 2005.

Please charge Deposit Account No. 19-0743 in the amount of \$510.00 to cover the required extension fee. Please charge any additional fees or credit overpayment to deposit Account No. 19-0743.

Respectfully Submitted,

DAN KESNER CARTER ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938
Minneapolis, MN 55402
(612) 373-6909

Date: October 6, 2005 By: Thomas F. Brennan
Thomas F. Brennan
Reg. No. 35,075

CERTIFICATE UNDER 37 CFR § 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelop addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 6th day of October 2005.

THOMAS F. BRENNAN
Name

Thomas F. Brennan
Signature

10/13/2005 BABRAHA1 00000043 190743 10663627

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S/N 10/663,627

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Dan K. Porter, d.k.porter@uspto.gov

Examiner: Dameon E. Levi

Serial No.: 10/663,627

Group Art Unit: 2841

Filed: September 16, 2003

Docket No.: 1555.021US1

Title: DEVICE AND METHOD FOR SELECTIVELY MODIFYING A BACKPLANE

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

This responds to the Office Action dated on April 6, 2005. Please amend the above-identified patent application as follows.

This response is accompanied by a Petition, as well as the appropriate fee, to obtain a three-month extension of the period for responding to the Office Action, thereby moving the deadline for response from July 6, 2005 to October 6, 2005.

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A system having a modifiable backplane capability, the system comprising:
 - a chassis;
 - an embedded backplane positioned within the chassis and adapted to receive a plurality of daughter boards; and
 - a replaceable module positioned proximate to the embedded backplane and adapted to receive the daughter boards, wherein ~~the system is modifiable depending on a selected characteristic of the replaceable module~~ includes one or more data paths, wherein each data path transfers data between two or more daughter boards;
wherein the embedded backplane and the replaceable module are configured such that data transfer bandwidth can be added between the two or more daughter boards without replacing the embedded backplane.
2. (Original) The system of claim 1 wherein the chassis is adapted for receiving both the embedded backplane and the replaceable module.
3. (Original) The system of claim 1 wherein the embedded backplane is positioned between the daughter boards and the replaceable module.
4. (Original) The system of claim 3 wherein at least one of the daughter boards includes a connector adapted to extend through the embedded backplane and into the replaceable module.
5. (Original) The system of claim 3 wherein the embedded backplane includes a plurality of openings, and wherein the replaceable module is configured to receive the daughter boards via the plurality of openings.

6. (Original) The system of claim 3 wherein the chassis includes an opening proximate to the embedded backplane for accessing the replaceable module.
7. (Original) The system of claim 1 wherein at least one of the daughter boards includes a first connector adapted to connect to the embedded backplane and a second connector adapted to connect to the replaceable module.
8. (Original) The system of claim 1 wherein the embedded backplane is in signal communication with the replacement module.
9. (Currently Amended) The system of claim 1 wherein the replaceable module is a replaceable backplane, ~~and wherein the selected characteristic of the replaceable backplane provides the system with additional bandwidth.~~
10. (Original) The system of claim 1 wherein the replaceable backplane includes a plurality of general purpose slots, wherein each general purpose slot is adapted to receive a daughter board.
11. (Currently Amended) The system of claim 10 further comprising a router card connected to one of the general purpose slots, wherein the router card is adapted to control the flow of data through the replaceable module.
12. (Currently Amended) The system of claim 11 wherein the replaceable module further includes first and second sets of data transfer paths connecting each general purpose slot and the router card, wherein the first set of data transfer paths is adapted to transfer data from each general purpose slot to the router card, and wherein the second set of data transfer paths is configured to transfer data from the router card to each general purpose slot.

13. (Currently Amended) A replaceable module adapted for modifying at least one characteristic of a telecommunications device having an embedded backplane, the module comprising:

a body portion, wherein the body portion includes a plurality of data paths;
a plurality of connections in communication with the data paths for connecting at least one of the data paths to ~~one~~ two or more printed circuit boards such that one of the printed circuit boards can transfer data to another of the printed circuit boards across the data path; and

alignments means for positioning the module with respect to the backplane, wherein the alignment means is configured such that data transfer bandwidth can be added between the two or more daughter boards plugged into the embedded backplane without replacing the embedded backplane.

14. (Original) The replaceable module of claim 13 wherein the connections are positioned on the module to correspond to openings in the embedded backplane.

15. (Currently Amended) The replaceable module of claim 13 further comprising:
~~— a plurality of printed circuit boards in signal communication with the connections; and~~
connection means for connecting at least one router board, wherein the router board is
~~attached~~ to each printed circuit board via at least one data path.

16. (Currently Amended) The replaceable module of claim ~~15~~ 13 further comprising connection means for connecting a router board ~~is attached~~ to each printed circuit board via first and second data paths, wherein the first data path is adapted to transfer data from the printed circuit board to the router board, and wherein the second data path is adapted to transfer data from the router board to the printed circuit board.

17. (Original) The replaceable module of claim 16 wherein the first and second data paths each comprise a pair of signal lines.

18. (Currently Canceled)

19. (Currently Canceled)

20. (Currently Canceled)

REMARKS

This responds to the Office Action dated on April 6, 2005, and the references cited therewith.

Claims 1, 9, 11-13, 15 and 16 are amended, claims 18-20 are canceled, and no new claims are added; as a result, claims 1-17 are now pending in this application.

§102 Rejection of the Claims

Claims 1-11 were rejected under 35 U.S.C. § 102(b) as being anticipated by Shimada et al. (U.S. Patent No. 5,873,738, hereinafter "Shimada").

Shimada describes a communication apparatus which uses cables for connecting circuit boards to external lines and sheet connectors for connecting circuit boards to a power supply.

In contrast, Applicant teaches, and claims in claims 1-17, a system which uses a replacement module to connect two or more circuit boards attached to an embedded backplane. If two circuit boards required higher data transfer bandwidth, the replacement module can be swapped out for one which enables the desired data transfer bandwidth.

Furthermore, Applicant teaches, and claims in claims 11, 12 and 15-17, that the replacement operates in conjunction with a router board to distribute signals from the router board to one or more daughter (circuit) boards, and from one or more daughter (circuit) boards to the router board. Shimada has no such teaching.

Claims 13-17 were rejected under 35 U.S.C. § 102(b) as being anticipated by Annapareddy et al. (U.S. Patent No. 5,603,044, hereinafter "Annapareddy").

Annapareddy describes a system which uses redundant backplanes to enable communication between two or more circuit boards. Half the signal lines between two circuit boards are connected through a first backplane while the remaining signal lines are connected through the second backplane. Annapareddy does not describe a system which uses a replacement module connected to an embedded backplane to connect two or more circuit boards attached to the same embedded backplane.

In contrast, as noted above, Applicant teaches, and claims in claims 13-17, that a replacement module which includes alignment means for positioning the module with respect to the backplane. The alignment means is configured such that data transfer bandwidth can be

added between the two or more daughter boards plugged into the embedded backplane without replacing the embedded backplane. Given the symmetric nature of the approach described by Annapareddy, one would have to replace both backplanes to add additional bandwidth. Therefore, Annapareddy does not teach an "embedded backplane" as that term is described and claimed by Applicant.

Furthermore, Applicant teaches, and claims in claims 15-17, that the replacement operates in conjunction with a router board to distribute signals from the router board to one or more daughter (circuit) boards, and from one or more daughter (circuit) boards to the router board. Annapareddy has no such teaching.

Reconsideration of claims 1-17 is respectfully requested.

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6909 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

DAN K. CARTER ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938
Minneapolis, MN 55402
(612) 373-6909

Date October 6, 2005

By Thomas F. Brennan
Thomas F. Brennan
Reg. No. 35,075

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Thomas F. Brennan

Name

Thomas F. Brennan
Signature